

Patent Abstracts of Japan

PUBLICATION NUMBER : 02278535
PUBLICATION DATE : 14-11-90

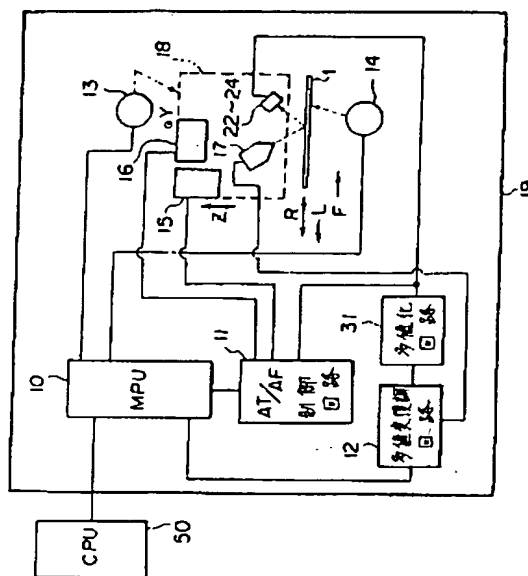
APPLICATION DATE : 19-04-89
APPLICATION NUMBER : 01097262

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INT.CL. : G11B 7/24 B41M 5/26 G11B 7/00

TITLE : OPTICAL INFORMATION RECORDING MEDIUM



ABSTRACT : PURPOSE: To increase information capacity per one bit in a recording medium and to realize high density recording by forming a recording layer which enables unsaturated recording according to energy level of irradiating light and allowing the recording layer to have plural values of reflectance corresponding to decoloration of the org. dye contained in the recording layer.

CONSTITUTION: Some org. dyes such as polymethyne cyanine and azulene show an increase in the modulation degree with increase of irradiating light power and finally saturate. The modulation degree indicates variation in reflectance of a recording bit against the power of irradiating light. The same effect can be easily and accurately realized with constant power of irradiating light and increasing pulse duration for recording. On recording, various duration of pulse is used to give various levels of modulation degrees under saturation, so that multiple informations can be recorded in one bit..A two-bit signal is transformed in a one-bit signal by a multilevel circuit 31 and the signal is sent to a multilevel modulation/demodulation circuit 12 to obtain a binary signal. Thus, high density data signals can be obt'd.

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